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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,108	12/05/2003	Peter Tiemann	2001P24347US	3107
7590 08/23/2005			EXAMINER	
SIEMENS CORPORATION INTELLECTUAL PROPERTY DEPT. 170 WOOD AVENUE SOUTH ISELIN, NJ 08830			KIM, TAE JUN	
			ART UNIT	PAPER NUMBER
			3746	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/729,108

Applicant(s)

TIEMANN ET AL.

Examiner

Ted Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-16 is/are rejected.
- 7) ☒ Claim(s) 11 and 17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/05/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claim 9 is objected to because of the following informalities: Claim 9, "the shower insert" lacks proper antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Regarding claims 9, 14-16, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-5, 12, 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Krueger (5,027,604). Krueger teaches a flow control body/structure for separate control of a cooling fluid inflow and a cooling fluid outflow for combustion chambers with a closed cooling system for turbines, wherein the flow control body 2 has a cross-section with a non-rotationally symmetrical cross-sectional shape in a flow control section; the cross-section is embodied in such a way that a circumcircle placed around this is

subdivided by the contour of the cross-section into at least two separate parts (see Fig. 2 or Fig. 3); wherein it has a figure-of-eight shaped cross-section 2 (see Fig. 2); it has passage openings 11 in the flow control section to allow the passage of flowing cooling fluid; wherein it has a shower insert 8 which is connected for flow engineering efficiency to a cooling fluid feed system routed through the flow control body and provided with a plurality of fine passage openings.

6. Claims 1, 2, 4-6, 9, 12, 14, are rejected under 35 U.S.C. 102(b) as being anticipated by Putz (6,276,142). Putz teaches a flow control body/structure for separate control of a cooling fluid inflow and a cooling fluid outflow for combustion chambers with a closed cooling system for turbines, wherein the flow control body 17 has a cross-section with a non-rotationally symmetrical cross-sectional shape in a flow control section; the cross-section is embodied in such a way that a circumcircle placed around this is subdivided by the contour of the cross-section into at least two separate parts; it has passage openings 3, 5 in the flow control section to allow the passage of flowing cooling fluid; wherein it has a shower insert 111 which is connected for flow engineering efficiency to a cooling fluid feed system routed through the flow control body and provided with a plurality of fine passage openings 113, said shower insert directing the cooling fluid entering for impingement cooling onto an impingement plate 100; wherein the shower insert is embodied as a plate shape, wherein the flow control body and the shower insert are inserted in a connecting piece in a receptacle space disposed in the connecting piece, whereby the flow control body has structures (about 4, 32), for example

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stud-like elevations, which engage with the connecting piece in order to transmit a force flow.

7. Claims 1-7, 9, 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (5,363,654). Lee teaches a flow control body/structure for separate control of a cooling fluid inflow and a cooling fluid outflow for combustion chambers with a closed cooling system for turbines, wherein the flow control body 40 has a cross-section with a non-rotationally symmetrical cross-sectional shape in a flow control section; the cross-section is embodied in such a way that a circumcircle placed around this is subdivided by the contour of the cross-section into at least two separate parts; wherein it has a figure-of-eight shaped cross-section (see Fig. 3); it has passage openings 50 in the flow control section to allow the passage of flowing cooling fluid; wherein it has a shower insert 44 which is connected for flow engineering efficiency to a cooling fluid feed system routed through the flow control body and provided with a plurality of fine passage openings 50, said shower insert directing the cooling fluid entering for impingement cooling onto an impingement plate 36; wherein the shower insert is embodied as a plate shape, the flow control body has, on its side facing the shower insert, a folded-over edge on which the shower insert is supported, wherein the flow control body and the shower insert are inserted in a connecting piece 64 in a receptacle space disposed in the connecting piece, whereby the flow control body has structures, corrugations, which engage with the connecting piece in order to transmit a force flow.

8. Claims 1, 2, 4-6, 12, 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Correia et al (5,391,052). Correia et al teach a flow control body/structure for separate control of a cooling fluid inflow and a cooling fluid outflow for combustion chambers with a closed cooling system for turbines, wherein the flow control body 69 has a cross-section with a non-rotationally symmetrical cross-sectional shape in a flow control section; it has passage openings 48b, 46b in the flow control section to allow the passage of flowing cooling fluid; wherein it has a shower insert 46b which is connected for flow engineering efficiency to a cooling fluid feed system routed through the flow control body and provided with a plurality of fine passage openings, said shower insert directing the cooling fluid entering for impingement cooling onto an impingement plate 34b; wherein the shower insert is embodied as a plate shape.

9. Claims 1-5, 12, 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Tiemann (6,676,370). Tiemann teaches a flow control body/structure for separate control of a cooling fluid inflow and a cooling fluid outflow for combustion chambers with a closed cooling system for turbines, wherein the flow control body 38 has a cross-section with a non-rotationally symmetrical cross-sectional shape in a flow control section; the cross-section is embodied in such a way that a circumcircle placed around this is subdivided by the contour of the cross-section into at least two separate parts; wherein it has a figure-of-eight shaped cross-section (Fig. 6); it has passage openings in the flow control section to allow the passage of flowing cooling fluid (col. 6, lines 48+); wherein it has a shower insert which is connected for flow engineering efficiency to a cooling fluid

feed system routed through the flow control body and provided with a plurality of fine passage openings, said shower insert directing the cooling fluid entering for impingement cooling onto an impingement plate; wherein the shower insert is embodied as a plate shape, the flow control body has, on its side facing the shower insert, a folded-over edge on which the shower insert is supported, and the shower insert is connected to the flow control body; wherein the flow control body has, in a central area, a receptacle provided with a surrounding collar, into which receptacle, for the purpose of fixing the shower insert in position, a screw bolt introduced through this can be screwed, whereby in the assembled state the screw bolt presses the shower insert onto the collar; wherein the flow control body and the shower insert are inserted in a connecting piece in a receptacle space disposed in the connecting piece, whereby the flow control body has structures, for example stud-like elevations, which engage with the connecting piece in order to transmit a force flow

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

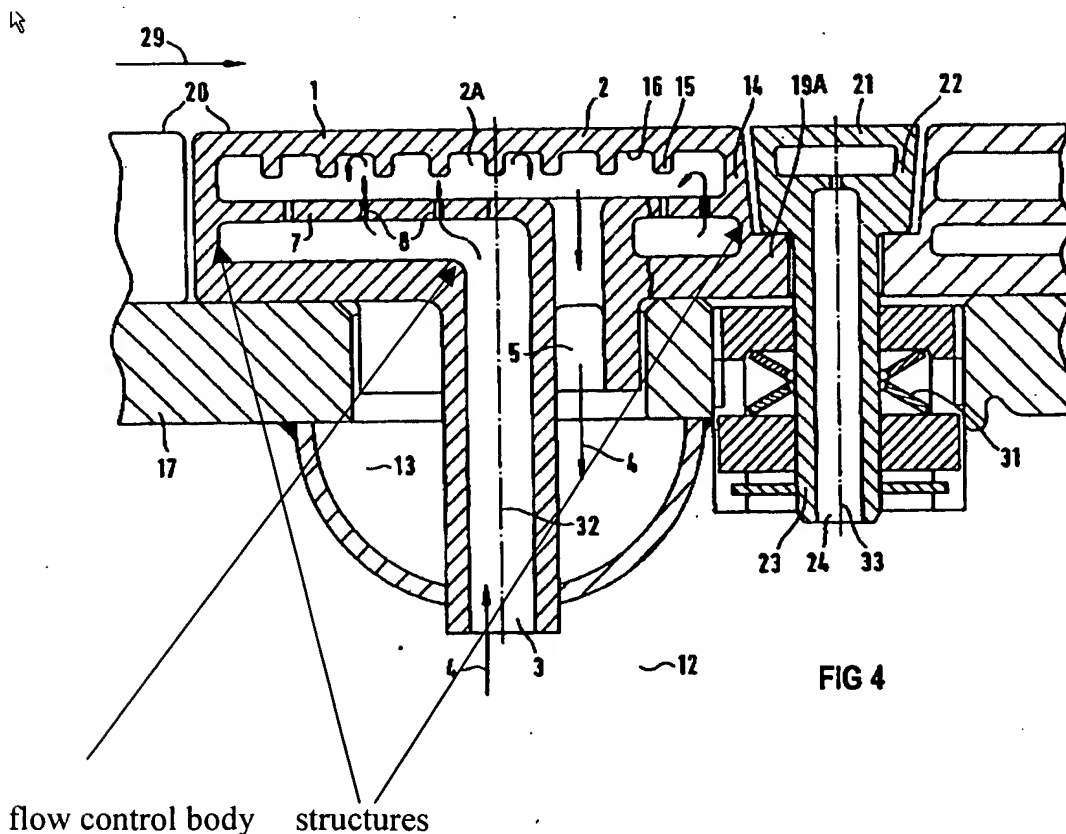
Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-10, 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gross (6,047,552) in view of any of the above applied art. Gross teaches a flow control body/structure (Fig. 4) for separate control of a cooling fluid inflow and a cooling fluid outflow for combustion chambers with a closed cooling system for turbines, wherein the flow control body has a cross-section with a cross-sectional shape in a flow control section; the cross-section is embodied in such a way that a circumcircle placed around this is subdivided by the contour of the cross-section into at least two separate parts; wherein it has a figure-of-eight shaped cross-section; it has passage openings in the flow control section to allow the passage of flowing cooling fluid; wherein it has a shower insert which is connected for flow engineering efficiency to a cooling fluid feed system routed through the flow control body and provided with a plurality of fine passage openings, said shower insert directing the cooling fluid entering for impingement cooling onto an impingement plate; wherein the shower insert 7 is embodied as a plate shape, the flow control body has, on its side facing the shower insert, a folded-over edge on which the shower insert is supported, and the shower insert is connected to the flow control body; wherein the flow control body has, in a central area, a receptacle provided with a

surrounding collar, into which receptacle, for the purpose of fixing the shower insert in position, a screw bolt 32 introduced through this can be screwed, whereby in the assembled state the screw bolt presses the shower insert onto the collar; wherein the flow control body and the shower insert are inserted in a connecting piece in a receptacle space disposed in the connecting piece, whereby the flow control body has structures, for example stud-like elevations, which engage with the connecting piece in order to transmit a force flow; wherein the impingement plate is placed on top of an edge of the connecting piece surrounding the receptacle space and is welded [product by process and given little weight] to this edge, whereby the impingement plate has an access opening which can be closed by means of a plug in the area underneath which the screw bolt is disposed.



It is not clear whether the cross sectional shape is non-rotationally symmetric in cross section. The above applied prior art teach cross sectional shape is non-rotationally symmetric in cross section. It would have been obvious to one of ordinary skill in the art to employ a cross sectional shape is non-rotationally symmetric in cross section, as an obvious matter of using the conventional shapes employed in the art.

Allowable Subject Matter

12. Claims 11, 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Ted Kim whose telephone number is 571-272-4829. The Examiner can be reached on regular business hours before 5:00 pm, Monday to Thursday and every other Friday.

The fax numbers for the organization where this application is assigned are
571-273-8300 for Regular faxes and 571-273-8300 for After Final faxes.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Thorpe, can be reached at 571-272-4444.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist of Technology Center 3700, whose telephone

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number is 703-308-0861. General inquiries can also be directed to the Patents Assistance Center whose telephone number is 800-786-9199. Furthermore, a variety of online resources are available at <http://www.uspto.gov/main/patents.htm>



Ted Kim

Primary Examiner

August 16, 2005

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